

SPECIAL OPERATIONS FORCES ACQUISITION, TECHNOLOGY, & LOGISTICS Campaigning with Partners for Integrated Deterrence

Mr. Glen Cullen, Program Manager, Acquisition Agility Ms. Leslie Babich, Director, SOFWERX



REMOVING BOUNDARIES

SOF AT&L is Interested in Leveraging EVERY Unique Approach to SOF Challenges

- Create a partnership pathway for Non-Traditional, Small Business
- Remove Government-Specific Requirements; Reduce Cost and Complexity; Accelerate speed to award
- Address Cooperative Intellectual Property Concerns

SOFWERX VALUE TO GOV & NON-TRADITIONAL INDUSTRY

CAPABILITIES

- SOF Focused Ecosystem ~57K+
- Ideation Sessions & Collaboration
- Prize Challenges, Prototyping,
 Experimentation, Combat Evals
- Fast and Flexible Agent
- Commercial Non-FAR Sub-Awards
- Off-Base Access
- Honest Broker



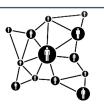
VALUE

- Making New Tech& Capabilities Available
- Pacing Tech Gains & Threats
- High Iterative Cycles, Low Cost
- Better Informed And Quality Decision Making
- Low Barriers to Entry for Industry
- Accelerate Entry into Acquisition Cycles
- Building Relationships

SOFWERX PATHWAYS



Problem Curation & Acquisition Strategy



Ecosystem Trove



Capability
Collaboration for
Technologies &
Solutions



Capability Assessments



Prize Challenges Hack-a-Thons



Rapid Prototyping



Tech Sprints & Experimentation



Combat Evaluations



Collaborative **Project Orders**



Transition Pathway

Network Building

Problem Statements
Technology Strategies
Information/Ideas/Contacts

Problem Validation

Preliminary Designs Concept Prototypes Feasibility Assessments

Solution Validation

Concept Prototypes
Operational Assessments
Test Data

Solution Delivery

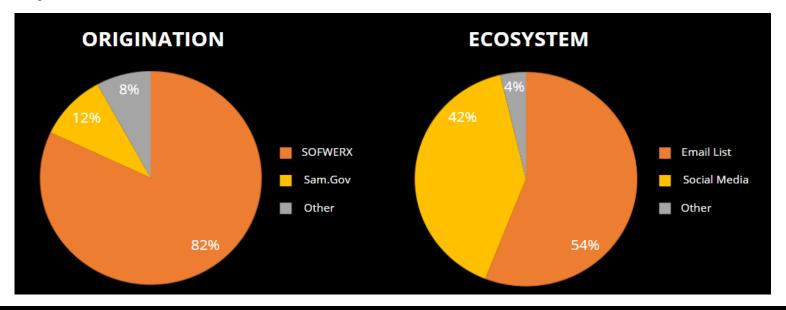
SOFWERX

- In September 2015, USSOCOM and DEFENSEWERX established a Partnership Intermediary Agreement (PIA) under USC Title 15
- Charter: Create and maintain a platform to accelerate delivery of innovative capabilities to USSOCOM and facilitate capability refinement thru exploration, experimentation, and assessment of promising technology
- SOFWERX has operationalized the charter into three separate areas:
 - **Discovery: The SOF Ecosystem -** Explore diverse approaches to extend the SOF competitive advantage
 - **Engagement: Collaborative Events** Deliberate collisions between USSOCOM and external innovation partners
 - Acceleration: Impacts & Outcomes Increasing the velocity and volume of technology delivery to SOF to ensure supremacy

DISCOVERY

The SOF Ecosystem: Explore and evaluate previously inaccessible technological approaches to extend the SOF competitive advantage

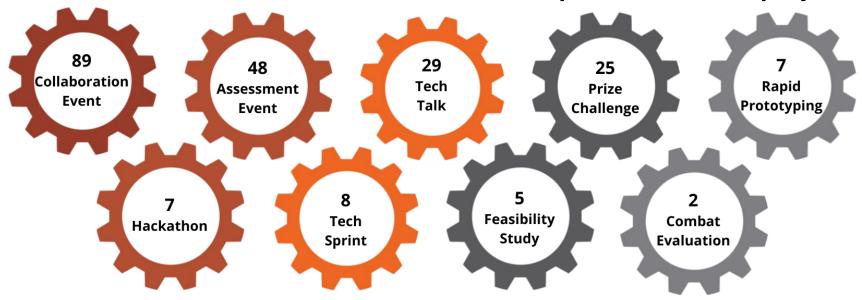
- SOFWERX is a neutral, non-profit partner that facilitates and executes technology discovery to solve USSOCOM Warfighter challenges
- The robust SOFWERX ecosystem, with 67K members, includes: USSOCOM, Interagency Partners, Academia, Interns, National Laboratories, and Non-Traditionals
- SOFWERX conducts outreach and market research to discover and attract innovative capabilities



ENGAGEMENT

SOFWERX Events: Deliberate collisions between USSOCOM and external innovation partners

SOFWERX has facilitated over 240 events and 295 operator-focused projects



- In May 2020, SOFWERX launched Tech Tuesday, a forum for innovators to present transformational technologies to USSOCOM and other Government partners.
 - 672 Government personnel in ecosystem
 - 846 technologies submitted
 - 355 presented to users and tech stakeholders

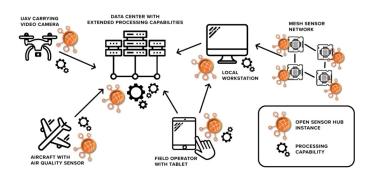
ACCELERATION

Outcomes: Increasing the velocity and volume of technology delivery to SOF to ensure supremacy

- SWX has contracted \$56,724,504 through 614 Purchase Orders and B2B Agreements
 - Average time to execute commercial agreements is less than 30 days
- Typical timeline for each challenge conducted through SOFWERX is 60-90 days from kick-off to event execution
- Small Business Innovation Research (SBIR) Program leveraging the SWX Ecosystem
 - SBIR/S&T Funds Executed: \$18.1M
 - SBIR Phase 1 (P1) Contracts: 23 / SBIR Phase 2 (P2) Contracts: 12

Metrics	Historical SOCOM Actuals	FY20 Pilot Actuals/Projections	FY20 Improvement	FY21 Pilot Actual Averages	FY21 Improvement	FY22 Pilot Averages	FY22 Improvement	Overall Averages	Relevance
Offers Received	19	39	205%	45	237%	31	163%	202%	Increase in Proposals
Phase I Proposal to Award	102 Days	22 Days	78%	33.25	68%	26.2	74%	73%	Decrease in Award Time
Phase II Proposal to Award	105 Days	20 Days	81%	34	68%	48	68%	72%	Decrease in Award Time
Phase I To Prototype Delivery	40.5 Months	14.5 Months	64%	23.35	42%			53%	PI to Prototype Savings

IMPACTS



The state of the s

Transitions (43)

Consignments (89)

Validations (250)

Knowledge Transfers (544)

SUCCESS WITH SBIR (2019-2022)

- Number of Proposals: 202% Increase
- Decrease in Award Time:
 - 73% (P1)
 - 72% (P2)
- P1 to Prototype Savings: 53%





STEM IN ACTION

College Intern Program

- Academic/Collegiate Intern support is provided through University of South Florida (USF)
- For FY21/22, 28 academic interns from 10 different schools supported SOFWERX efforts
- Each intern works up to 20 hrs/week during fall/spring semester and up to 29 hrs/week during the summer semester on approved projects.
- Elementary/Middle/High School Engagement
 - Support clubs or kickstart new STEM initiatives
 - Provide education and mentorship to explore career pathways
 - Create customized activities to demonstrate and showcase innovation processes





ADVANCED MANUFACTURING CAPABILITIES

Personnel

- Manufacturing Engineering Manager
- Staff Mechanical Engineer and/or Senior Electrical Engineer
- Interns

Software

- SolidWorks CAD
- Fusion 360 CAM
- Ansys Fluent Computational Fluid Dynamics / Simulations
- MATLAB Mathematical Computations

Equipment

- Computer Numerical Control (CNC) Mill, Lathe, Plasma Cutter,
 Laser Cutter
- Manual Mill, Lathe, Hydraulic Press Brake, Hydraulic Ironworker,
 Sheet Roller, Sewing Machine
- Welding All facets, including but not limited to MIG, TIG, Stick,
 Steel/Aluminum
- 3D Printing Resin based, Plastic Filament based, Plastic Filament with Carbon Fiber Inlay



GETTING INVOLVED WITH SOFWERX

- Join the Ecosystem <u>sofwerx.org</u>
- Participate in events as SMEs events.sofwerx.org
- Innovators:
 - Submit technologies to events and events.sofwerx.org
 - Submit technologies to Tech Tuesday sofwerx.org/techtuesday
- USSOCOM:
 - Nominate technology focus areas for Tech Tuesday (Link TBD)
 - Submit a Foundry Request sofwerx.org/foundry
 - Bring SOFWERX a Warfighter challenge sofwerx.org/request